

We claim:

1. An absorbent device configured for partial disposition within the vestibule of a wearer, and adapted to deliver a therapeutic agent, the device comprising:

5 a fluid-absorbent body having an application region for projection within the vestibule; and

a formulation including a therapeutic agent positioned substantially within the application region.

10 2. The device of claim 1, wherein the body includes a cover, and wherein the therapeutic agent is formed with the cover.

15 3. The device of claim 1, wherein the body includes a cover having a surface, and wherein the therapeutic agent is coupled to the surface.

4. The device of claim 1, wherein the body includes an absorbent, and wherein the formulation including the therapeutic agent is formed with the absorbent.

20 5. The device of claim 1, wherein the body includes an absorbent, and wherein the formulation including the therapeutic agent is contained in the absorbent.

6. The device of claim 1, wherein the body includes an absorbent having a surface, and wherein the therapeutic agent is coupled to the surface.

25 7. The device of claim 1, further comprising a reservoir within the application region, wherein the therapeutic agent is located substantially within the reservoir.

8. The device of claim 7, wherein the application region has a surface, and wherein the reservoir is in communication with the surface.

30 9. The device of claim 7, wherein the application region has a surface, and wherein the reservoir is located under the surface.

35 10. The device of claim 1, wherein the formulation including the therapeutic agent is substantially a liquid.

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Applicant's Specification
11. The device of claim 1, wherein the therapeutic agent is an emulsion.
 12. The device of claim 1, wherein the therapeutic agent is a powder.
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 13. The device of claim 1, wherein the therapeutic agent is a gel.
 14. The device of claim 1, wherein the therapeutic agent is an ointment.
 - 10 15. The device of claim 1, wherein the therapeutic agent is a salve.
 16. The device of claim 1, wherein the formulation including the therapeutic agent is substantially a solid.
 - 15 17. The device of claim 1, wherein the formulation including the therapeutic agent is substantially a semi-solid.
 18. The device of claim 1, wherein the formulation including the therapeutic agent is encapsulated.
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 19. The device of claim 1, wherein pressure applied by the user to the fluid-absorbent body releases the formulation including the therapeutic agent from the application region.
 - 25 20. The device of claim 1, wherein pressure applied by the user to the fluid-absorbent body releases the formulation including the therapeutic agent to the application region.
 21. The device of claim 1, wherein the therapeutic agent is adapted to treat
30 dysmenorrhea.
 22. The device of claim 1, wherein the therapeutic agent is selected from the group consisting of aspirin, ibuprofen, indomethacin, phenylbutazone, bromfenac, sulindac, nabumetone, ketorolac, mefenamic acid, and naproxen.
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23. The device of claim 1, wherein the therapeutic agent is selected from the group consisting of Lidocaine, Mepivacaine, Etidocaine, Bupivacaine, 2-Chloroprocaine hydrochloride, Procaine, and Tetracaine hydrochloride.

5 24. The device of claim 1, wherein the therapeutic agent is selected from the group consisting of Diltaizem, Israpidine, Nimodipine, Felodipine, Verapamil, Nifedipine, Nicardipine, and Bepridil.

10 25. The device of claim 1, wherein the therapeutic agent is selected from the group consisting of Dofetilide, E-4031, Imokalant, Sematilide, Ambasilide, Azimilide, Ted isamil, RP58866, Sotalol, Piroxicam, and Ibutilide.

15 26. The device of claim 1, wherein the therapeutic agent is selected from the group consisting of Terbutaline, Salbutamol, Metaproterenol, and Ritodrine.

20 27. The device of claim 1, wherein the therapeutic agent is selected from the group consisting of nitroglycerin, isosorbide dinitrate, and isosorbide mononitrate.

25 28. The device of claim 1, wherein the therapeutic agent is selected from the group consisting of Celecoxib, Meloxicam, Rofecoxib, and Flosulide.

29. The device of claim 1, wherein the therapeutic agent is selected from the group consisting of: *Agnus castus*, aloe vera, comfrey, calendula, dong quai, black cohosh, chamomile, evening primrose, *Hypericum perforatum*, licorice root, black currant seed oil, St. John's wort, tea extracts, lemon balm, capsicum, rosemary, *Areca catechu*, mung bean, borage seed oil, witch hazel, fenugreek, lavender, and soy.

30 30. The device of claim 1, wherein the therapeutic agent is a *Vaccinium* extract derived from a plant selected from the group consisting of: heath, cranberries, blueberries, azaleas, red onion skin, short red bell peppers, long red bell peppers, beet root extract, and capsanthin.

35 31. The device of claim 1, wherein the therapeutic agent is selected from the group consisting of: whortleberry, lingenberry, chokeberry, sweet rowan, rowanberry, seabuckthouberry, crowberry, strawberries, and gooseberries.

32. The device of claim 1, wherein the therapeutic agent is a combination of a botanical and a beneficial agent selected from the group consisting of: vitamins, calcium, magnesium, hormones, analgesics, prostaglandin inhibitors, prostaglandin synthetase
5 inhibitors, leukotriene receptor antagonists, essential fatty acids, sterols, anti-inflammatory agents, vasodilators, chemotherapeutic agents, and agents to treat infertility.

33. The device of claim 1, wherein the formulation includes a ligand adapted to target the therapeutic agent.

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34. The device of claim 1, wherein the body includes a surface, and wherein the formulation including a therapeutic agent is applied to the surface.

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35. The device of claim 1, wherein the body is constructed from a material, and wherein the formulation including a therapeutic agent is applied to the material before the body is constructed.

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36. The device of claim 1, wherein the body includes an apertured web, and wherein the formulation including a therapeutic agent is contained in the apertured web.

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37. The device of claim 1, wherein the formulation including a therapeutic agent is applied to degradable fibers.

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38. The device of claim 1, wherein the body has an interstitial space, and wherein the formulation including a therapeutic agent is interspersed within the interstitial space.

39. The device of claim 1, wherein the formulation including a therapeutic agent includes a hydrogel material.

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40. The device of claim 1, wherein the formulation including a therapeutic agent includes a foam component.

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41. The device of claim 1, wherein the formulation including a therapeutic agent includes a polymeric material.

42. A method for producing an absorbent device configured for partial
5 disposition within the vestibule of a wearer, and adapted to deliver a therapeutic agent,
the method comprising:

manufacturing an absorbent device having a fluid-absorbent body having an
application region for projection within the vestibule; and

10 locating a formulation including the therapeutic agent substantially within the
application region.

43. The method of claim 42, further comprising applying a mucoadhesive
adapted to enhance the contact between the absorbent article and a non-cornified
epithelium of the wearer.

15 44. The method of claim 42, wherein the manufacturing act includes
manufacturing the body with a cover, wherein the formulation including the therapeutic
agent is formed with the cover.

20 45. The method of claim 42, wherein the manufacturing act includes
manufacturing a body with cover having a surface, wherein the formulation including the
therapeutic agent is coupled to the surface.

25 46. The method of claim 42, wherein the manufacturing act includes
manufacturing the method such that pressure applied by the wearer to the fluid-absorbent
body releases the formulation including the therapeutic agent from the application region.

30 47. The method of claim 42, wherein the body has a surface, and wherein the
locating act includes applying the formulation including a therapeutic agent to the surface.

48. The method of claim 42, wherein the manufacturing act includes
manufacturing the body from a material, and wherein the locating act includes applying
the formulation including a therapeutic agent to the material before the body is
manufactured.

49. The method of claim 42, wherein the manufacturing act includes manufacturing the body to include an apertured web, and wherein the locating act includes containing the formulation including a therapeutic agent in the apertured web.

5 50. The method of claim 42, wherein the locating act includes producing the formulation including a therapeutic agent integrally with the device.

51. An absorbent device configured for partial disposition within the vestibule of a wearer, and adapted to deliver a therapeutic agent, the device comprising:
a fluid-absorbent body having an application region for projection within the vestibule; and
5 a means for carrying a formulation including the therapeutic agent within the application region.

52. The device of claim 51, wherein the application region has a surface, and wherein the carrying means is substantially positioned adjacent the surface.

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53. The device of claim 51, wherein the application region has a reservoir, and wherein the carrying means is substantially positioned within the reservoir.

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54. A method of producing an absorbent article configured for partial disposition within the vestibule of a wearer and adapted to deliver a therapeutic agent, the method comprising:

- treating a portion of a porous nonwoven sheet formed from hydrophobic polymer
5 with a formulation including the therapeutic agent; and
forming the absorbent article so as to include absorbent material, such that the
absorbent article has an application region for projection within the vestibule, and such
that the portion of the porous nonwoven sheet at least partially covers the application
region of the absorbent article.

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55. A method of delivering a therapeutic agent through the non-cornified epithelium of the labia of a wearer, the method comprising:

disposing an absorbent article at least partially within the vestibule of the wearer, the device being adapted to contact the non-cornified epithelium and deliver the
5 therapeutic agent.

56. The method of claim 55, wherein pressure applied by the wearer to the absorbent article releases the therapeutic agent.

10 57. The method of claim 55, wherein the pressure is applied by the wearer during placement of the absorbent article.

15 58. The method of claim 55, wherein the pressure is applied by the wearer during use of the absorbent article.

15 59. The method of claim 55, wherein delivery of the therapeutic agent is effected by melting a solid.

20 60. The method of claim 55, wherein delivery of the therapeutic agent is effected by rupturing a capsule.

61. The method of claim 55, wherein delivery of the therapeutic agent is effected by melting a semi-solid.

25 62. The method of claim 55, wherein delivery of the therapeutic agent is effected by combining the therapeutic agent with a mucoadhesive that enhances the contact between the absorbent article and the non-cornified epithelium.

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63. An absorbent device comprising:
- a fluid-absorbent body having an application region for projection within the vestibule of a wearer; and
- a formulation including a therapeutic agent, wherein the application region is
- 5 adapted to contact and deliver the therapeutic agent through the non-cornified epithelium of the labia.